

Assessing Rat Diaphragm Motor Unit Connectivity Outcome Measures as Quantitative Biomarkers of Phrenic Motor Neuron Degeneration and Compensation

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Materials

Name	Company	Catalog Number	Comments
2 mL Glass Syringe	Kent Scientific Corporation	SOMNO-2ML	
50 mL, Model 705 RN syringe	Hamilton Company	7637-01	Utilized to conduct intrapleural injection
Autoclavable 26 G needles (26S RN 9.52 mm 40°)	Hamilton Company	7804-04	Utilized to conduct intrapleural injection
Cholera toxin B-subunit (CTB)	MilliporeSigma	C9903	Utilized for intrapleural injection to label surviving motor neurons
Cholera toxin B-subunit conjugated to saporin (CTB-SAP)	Advanced Targeting Systems	IT-14	Utilized for intrapleural injection to cause motor neuron death
Detachable Cable	Technomed	202845-0000	to connect the recorder electrode to the electrodiagnostic machine
Disposable 2" x 2" disc electrode with leads	Cadwell	302290-000	ground electrode
disposable monopolar needles 28 G	Technomed	202270-000	cathode and anode stimulating electrodes- recording electrodes
EMG needle cable (Amp/stim switch box)	Cadwell	190266-200	to connect monopolar electrodes to electrodiagnostic stimulator
Helping Hands alligator clip with iron base	Radio Shack	64-079	Maintaining recording electrode placement
Isoflurane (250 mL bottle)	Piramal Healthcare		
monoject curved tip irrigating syringe	Covidien	81412012	utilized for application of electrode gel
PhysioSuite Physiological Monitoring System with RightTemp Homeothermic Warming	Kent Scientific Corporation	PS-RT	Includes infrared warming pad, rectal probe, and pad temperature probe
Pro trimmer Pet Grooming Kit	Oster	078577-010-003	clippers for hair removal

Saporin (SAP)	Advanced Targeting Systems	PR-01	Utilized for intrapleural injection (control agent when injected by itself)
Sierra Summit EMG system	Cadwell Industries, Inc., Kennewick, WA		portable electrodiagnostic system
SomnoSuite Low-Flow Digital Anesthesia System	Kent Scientific Corporation	SOMNO	Includes anti-spill, anti-vapor bottle top adapter; Y adapter tubing; charcoal scavenging filter
Sprague-Dawley rat	Envigo colony 208a, Indianapolis, IN		
Veterinarian petroleum-based ophthalmic ointment	Puralube	26870	applied during anesthesia to avoid corneal injury